

Claims

1. A broadcast data receiver (BDR) for receiving broadcast digital data, said receiver including a plurality of tuners, each controlled independently for selective tuning to receive one of a range of data RF carriers at known frequencies and characterised in that a first tuner is controlled to tune to a frequency to receive data for a user selected television channel in accordance with user requirements at that instant and, if a further tuner is free at that instant, it is tuned to receive data for a channel differing to that which is selected for viewing at that instant and said channel identity is based on a prediction made by the control means for the BDR.

2 A broadcast data receiver according to claim 1 characterised in that the said further tuner is tuned to receive data for a predicted channel which is on the same RF carrier frequency as that to which the first tuner is tuned.

3 A broadcast data receiver according to claim 1 characterised in that the said further tuner is tuned to receive data for the predicted channel which is on an RF carrier at a frequency which is different to that to which the first tuner is tuned.

4 A broadcast data receiver according to claim 1 characterised in that the predicted channel data is carried on an RF carrier at the same frequency as that to which the first tuner is already tuned, the prediction is ignored and the next most probable prediction generated and this continues until a channel with data on an RF carrier at a different frequency is identified.

5 A broadcast data receiver according to claim 1 characterised in that the first tuner is tuned to an RF carrier on which data for a user selected channel is carried and such data received, and

processed, to generate a television programme at that time and the further tuner is used to receive data for a second channel and data received for that channel is stored for subsequent retrieval and when a tuner is being used for neither of said functions it is deemed to be free and controlled to tune to a predicted channel.

6 A broadcast data receiver according to claim 1 characterised in that the further tuner of the multi-tuner BDR is used to tune to the RF carrier for a channel predicted to be subsequently selected by the user, on the basis of a prediction made referring to previous user channel selection patterns.

7 A broadcast data receiver according to claim 6 characterised in that the previous user channel selection patterns are based on the actual BDR user or user's channel selections which are stored in memory in the BDR for reference.

8 A broadcast data receiver according to claim 6 characterised in that the previous user channel selection patterns are generic data provided by the broadcaster and stored in the BDR memory.

9 A broadcast data receiver according to claim 1 characterised in that if the user does subsequently select to change the BDR to generate and display a channel, and said channel matches the predicted channel, the BDR selects to receive the data for that channel from the said further tuner which is already tuned to receive the data for the predicted channel.

10 A broadcast data receiver according to claim 1 characterised in that the RF carrier on which the predicted channel data is carried is identified and the further tuner, if free at that instant, or as soon as the same is free from performing other functions, is used to tune to the appropriate carrier frequency.

11. A broadcast data receiver according to claim 1 characterised in that if the user does subsequently select a new channel to view and said selected channel does not match the predicted channel the BDR controls one of said tuners to tune to the appropriate RF carrier for the data for the selected channel.

12 A broadcast data receiver according to claim 1 characterised in that if more than two tuners are provided in the BDR a number of predicted channels can be selected and the carriers tuned to.

13 A method for controlling the tuning of a plurality of tuners provided in a broadcast data receiver for broadcast digital data, said receiver including a plurality of tuners for selective tuning independently to receive one of a range of RF data carriers which are transmitted from a broadcaster over a range of RF radio frequencies, said BDR allowing the selection by the user of a television channel for viewing via a display screen and speakers connected with the broadcast data receiver and characterised in that a first tuner is controlled to tune to a particular frequency for an RF data carrier to receive data for a user selected television channel to be viewed via the broadcast data receiver and, if a further tuner is free at that instant, said further tuner is tuned to receive data for a channel differing to that which is selected for viewing at that instant and said channel identity is based on a prediction made by the control means for the broadcast data receiver.

14 A method according to claim 13 characterised in that the channel selected for viewing is identified as part of the channel prediction process and, with reference to that channel, reference is made to a memory means in which data relating to previous channel selection patterns is held and the channel or channels

which have been subsequently selected by the user on previous occasions is referred to and from this data, a predicted channel identity is determined and the further tuner of the BDR is tuned to the appropriate RF carrier for the predicted channel data.